

## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A lithographic material that contains a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and~~ random copolymer contain up to 3 carbon atoms.

2. (Currently Amended) A positive tone lithographic material that contains a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and~~ random copolymer contain up to 3 carbon atoms.

3. (Currently Amended) A chemically amplified positive tone lithographic material that contains a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and~~ random copolymer contain up to 3 carbon atoms.

4. (Currently Amended) A chemically amplified positive tone lithographic material that contains a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and~~ random copolymer comprise ethyl groups.

5. (Currently Amended) A chemically amplified positive tone lithographic material that contains a (meth) acrylic ~~polymer~~ random copolymer, bearing at least one polyhedral oligomeric silsesquioxane group, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and~~ random copolymer comprise ethyl groups.

6. (Canceled)

7. (Currently Amended) A lithographic process comprising exposing a lithographic material containing a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group to 157 nm radiation, or VUV exposure, or EUV exposure, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and random copolymer~~ contain up to 3 carbon atoms.

8. (Currently Amended) A lithographic process comprising exposing a lithographic material containing a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group to 157 nm radiation, or VUV exposure, or EUV exposure, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and random copolymer~~ comprise ethyl groups.

9. (Currently Amended) A bilayer lithographic process comprising exposing a positive tone lithographic material containing a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group to radiation, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of ~~polymer and random copolymer~~ contain up to 3 carbon atoms.

10. (Currently Amended) A bilayer lithographic process comprising exposing a positive tone lithographic material containing a ~~polymer~~ random copolymer bearing at least one polyhedral oligomeric silsesquioxane group to radiation, wherein the alkyl substituents of the polyhedral oligomeric silsesquioxane group which are not linked to the main chain (backbone) of the ~~polymer and random copolymer~~ comprise ethyl groups.

11. (New) The lithographic material of claim 1, wherein the random copolymer comprises a meth(acrylate) monomer having a hydrophilic group and a meth(acrylate) monomer having a protected hydrophilic group.

12. (New) The lithographic material of claim 1, wherein the random copolymer comprises the polyhedral oligomeric silsesquioxane group in a range of 20 weight percent to 60 weight percent.

13. (New) The lithographic material of claim 1, wherein the random copolymer comprises 30 weight percent of the polyhedral oligomeric silsesquioxane group.